Early Detection and Prevention of Common Respiratory Disorders in Older people

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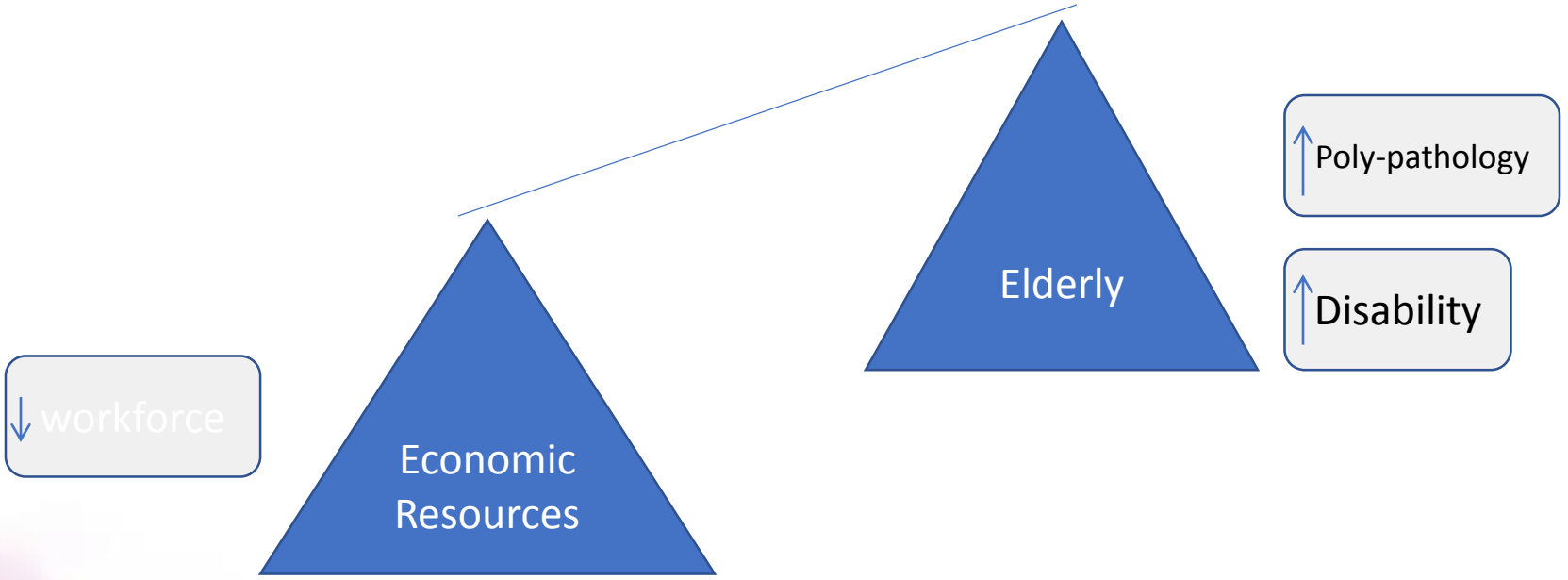
Rapidly Aging World Population



Minimizing negative impact

- Long term preventive political strategies

- Health care interventions

✓Strategies to slow functional decline

✓Strategies to preserve personal capabilities in geriatric population

Common Respiratory Diseases in The Elderly

- Bronchial Asthma
- Chronic Obstructive Pulmonary Disease (COPD)
- Community acquired pneumonia (CAP)
- Sleep disordered breathing
- Pulmonary embolism
- Lung Cancer
- Interstitial lung Disease (ILD)
- Aspiration Pneumonia

Special Concerns in Elderly with Respiratory Disorders

1. Need For Multidisciplinary care (independence in basic ADL Vs. increase in FEV1)
2. Atypical presentation are more common in Elderly (e.g. neurological/ psychiatric symptoms)
3. Co- morbidity complicating the clinical picture
4. Palliative & end of life care needs are more
5. Impact of indoor and out door air pollution
6. Lung function and spirometry

- ✓ Poor quality of reference standards
- ✓ Frail patients excluded from trials – guidelines may not apply
- ✓ May take longer time to perform , repeated attempts, good technician needed
- ✓ May not benefit from sophisticated testing

Bronchial Asthma

- Chronic air way disease with airway hyper reactivity and variable airway obstruction
- Under diagnosed and undertreated in Elderly

- Episodic cough , wheeze, chest tightness, SOB
- Diagnosis in elderly can be complex (co morbidity, overlap with other diseases)
- CCF, COPD, GORD, sleep disorders, vocal cord dysfunction

- Early onset Vs. Late Onset
- Spirometry – utmost importance in diagnosis and follow-up , especially in older asthmatics

V. Bellia, N. Scichilone and S. Battaglia.Asthma in elderly. *In*: Antonelli Incalzi R. Bellia V .eds. Pulmonary diseases in the elderly. *Eur Respir Mon* 2009

Bronchial asthma - Treatment

- Treated according to severity – similar to young asthmatics

- But response may be suboptimal (age related impairment in bronchodilator responsiveness)
- Compliance issues – may forget
- Inhaler technique may be difficult to understand
- Lowest possible Inhaled steroid dose (risk of osteoporosis and cataract)
- Avoidance of dust, fumes, smoke, drugs like beta blockers, NSAIDS
- Adverse effects of theophylline
- Annual influenza and 5 yearly pneumococcal vaccines

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Chronic Obstructive Pulmonary Disease

- Progressive respiratory disorder with fixed airway obstruction with minimal or no reversibility
- Hx of smoking, increasingly recognized in females –indoor air pollution
- Persistent and progressive SOB, productive cough, reduced exercise tolerance.

- Spirometry essential – to distinguish from asthma and to monitor progress

Antonelli Incalzi R, Pedone C, Pahor M. Multidimensional assessment and treatment of the elderly with COPD. *In:* Antonelli Incalzi R, Bellia V, eds. Pulmonary diseases in the elderly. *Eur Respir Mon* 2009; 43: 35–55.

COPD Cont…….

- Multi dimensional assessment and management is a needed

✓Medical interventions
✓Rehabilitative interventions
✓Psyco Social interventions

- Oral steroids – little or no value
- Long acting ant muscarinic (LAMA) and beta Agonists (LABA)
- Inhaled steroids

- Spirometic severity, degree of dyspnea and exacerbation frequency considered in choosing treatment

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COPD Cont…….

- Chronic Vs. Acute Respiratory failure

- Cessation of Smoking
- Pulmonary rehabilitation
- Vaccination (Influenza and pneumococcal)
- Long Term Oxygen Therapy
- Non Invasive Ventilation

- Underutilization of spirometry, particularly in the very old, frequently contributes to errors in the diagnosis of COPD

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Community Acquired Pneumonia

Symptoms – Cough, High fever, Pleuritic chest pain ,

- Evidence of consolidation on examination and on Chest X-Ray
- Atypical symptoms common in elderly –
- Altered mental state
- Incontinence,
- Falls, lethargy and weakness
- Higher morbidity and mortality in elderly
- Prompt antibiotic and supportive care needed.
- May need ICU care and prolonged hospital stay – complex decision making regarding the benefits of advance therapy
- Need to focus on the post-discharge period, when most deaths occur.

V. Kaplan, S. Yende and D.C. Angus. Community –acquired pneumonia in elderly. *In*: Antonelli Incalzi R. Bellia V .eds. Pulmonary diseases in the elderly. *Eur Respir Mon* 2009

Sleep Disordered Breathing

- Highly prevalent
- Classical Obstructive sleep apnea- Day time sleepiness, snoring and recurrent arousals from sleep
- Co morbidities like CVA, Heart failure, COPD , DM can coexist and contribute .
- Despite the high prevalence of SDB, diagnostic criteria, clinical characteristics and treatment options are much less defined in the elderly compared with middle-aged patients

Lung Cancer

- Increased incidence worldwide.
- Both in Males and Females.
- Smoking related in most.
- ? Role of air pollution
- Arsenic, heavy metal and asbestos exposure
- Symptoms – Cough, hemoptysis, Loss of weight, Loss of appetite,
- Symptoms related to loco regional spread , metastatic spread and para- neoplastic manifestations
- Surgery in Fit elderly patient may give similar benefits to no elderly
- Co –morbidities may limit treatment options
- More toxicity with adjuvant chemotherapy

Tuberculosis

- Tuberculosis (TB) remains one of the world's most lethal infectious diseases.
- Clinical features of TB in older adults may be atypical and confused with age-related diseases.
- Common symptoms – prolonged cough, LOW,LOA, Hemoptysis, evening fever, involved organ specific symptoms
- Diagnosis and management of TB in the elderly person can be difficult; treatment can be associated with adverse drug reactions.

BMC Infect Dis. 2013; 13: 121

Keeping lungs healthy- Individual perspective

- **Don't Smoke**
- Cigarette smoking is the major cause of lung cancer and chronic obstructive pulmonary disease (COPD), If you smoke, it's never too late to benefit from quitting.

- **Avoid Exposure to Pollutants That Can Damage Your Lungs**
- Secondhand smoke, outdoor air pollution, chemicals in the home and workplace, and radon all can cause or worsen lung disease. Make your home and car smoke free. Avoid exercising outdoors on bad air days. sick.

http://www.lung.org/lung-health-and-diseases/protecting-your-lungs

Keeping lungs healthy- Individual perspective

- **Prevent Infection**
- A cold or other respiratory infection can sometimes become very serious. There are several things you can do to protect yourself:
- Wash your hands often with soap and water. Alcohol-based cleaners are a good substitute if you cannot wash.
- Avoids crowds during the cold and flu season.
- Good oral hygiene can protect you from the germs in your mouth leading to infections. Brush your teeth at least twice daily and see your dentist at least every six months.
- Get vaccinated every year against influenza. Talk to your healthcare provider to find out if the pneumonia vaccine is right for you.
- If you get sick, keep it to yourself! Protect the people around you, including your loved ones, by keeping your distance. Stay home from work or school until you're feeling better.

http://www.lung.org/lung-health-and-diseases/protecting-your-lungs

Keeping lungs healthy- Individual perspective

- **Get Regular Healthcare**
- Regular check-ups help prevent diseases, even when you are feeling well. This is especially true for lung disease, which sometimes goes undetected until it is serious.

- **Exercise**
- Aerobic exercise helps improve your lung capacity. Specific breathing exercises can also help improve your lung function if you have certain lung diseases, like COPD. Exercise and breathing techniques are also great for improving your mood and helping you relax.

http://www.lung.org/lung-health-and-diseases/protecting-your-lungs

Keeping lungs healthy-Community Perspective

- Burden of chronic respiratory diseases (CRDs) including asthma, COPD, and lung cancer will worsen because of tobacco use and population ageing.

- the objectives of the WHO strategy on CRDs are:
- Better surveillance to map the magnitude of Chronic Respiratory Diseases and analyse their determinants with particular reference to poor and disadvantaged populations, and to monitor future trends.

- Primary prevention to reduce the level of exposure of individuals and populations to common risk factors

WHO strategy for prevention and control of chronic respiratory diseases. 2002

- **Primary prevention**
- reduce the level of exposure of individuals and populations to common risk factors
- tobacco,
- poor nutrition,
- frequent lower respiratory infections during childhood,
- environmental air pollution (indoor, outdoor, and occupational).

- **Secondary and tertiary prevention** to strengthen health care for people with Chronic Respiratory Diseases by identifying cost-effective interventions, upgrading standards and accessibility of care at different levels of the health care system.

WHO strategy for prevention and control of chronic respiratory diseases. 2002

Thank You